

Requirements for the Submission of Archaeological Collections to the Fort Bliss Curatorial Facility

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1. Obtaining an Accession Prefix

The processing of artifacts and associated documents is the responsibility of the depositor. This includes cleaning, analyzing, cataloging, labeling, and packaging. In order to curate any material collected during a contract project, it is necessary to obtain a Fort Bliss project number and accession prefix for the collection.

New FB site numbers should be requested from your Contracting Officer Representative (COR). Please use the lowest site number and associated state number for those sites that have been combined during field work.

2. Cleaning

- a) All artifacts must be cleaned except where cleaning could damage the artifact. Cleaning procedures should be appropriate to the type and condition of the material (*see below*)
- b) Wet cleaning should be restricted to stable artifacts.
- c) Dry cleaning typically involves dry brushing or dry vacuuming.
- d) If materials are porous, or otherwise friable or susceptible to deterioration by wet cleaning, dry brushing is the preferred alternative.
- e) Please document and inform the Fort Bliss Curatorial Facility, if treatments other than water and dry brushing are to be used (e.g. acetic acid). The use of hydrochloric acid (HCL) or its diluted form, Muriatic Acid, is not recommended.
- f) Artifacts designated for special studies, such as blood residue can be curated unwashed but must be clearly marked as such on the bag and noted in the electronic database.
- g) We encourage setting aside some portion of uncleaned specimens of each artifact type for analysis by future researchers; however, the bag must be marked as such and noted in the electronic database.

Guidelines for Cleaning Archaeological Materials

Material class	Recommended cleaning method
Bone	Dry brush.
Organics (e.g., wood, botanicals)	Do not clean.
Ceramics	Stable, high-fired ceramics may be washed with water. Do not clean specimens that will undergo special analysis.
Glass	Softly dry brush stable glass as necessary. Do not brush, scrub, or aggressively clean glass that has thin films, encrustations, or iridescence.
Leather	Do not clean.

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Flaked stone	Wash in water; gently brush. Do not clean specimens that will undergo use-wear or residue analysis.
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Metals	Do not wash.
Paper	Do not clean.
Samples for special analysis	Follow procedures prescribed by analytical laboratory.
Shell	If necessary shell can be washed gently with a damp or dry brush. To prevent loss or damage, do not wash in a basin or tub.
Textiles (e.g., basketry, cordage, cloth)	Do not clean. Use low power vacuum through a screen if absolutely necessary.

3. Labeling

- a. The individual labeling of artifacts is OPTIONAL; however, it is recommended that oversized objects that do not fit in a bag or box be either directly or indirectly labeled.
- b. Direct Labeling :
 - 1) Items with firm surfaces (e.g., ceramics and lithics) can be labeled with a computer generated laser printed tag on acid-free paper (Method adapted from the Arizona State Museum).
 - 2) Use either Century Gothic or Arial type font in the 3 to 6 point size range for most items. Use up to 11 point size for larger items. Legibility may be enhanced by expanding the character spacing by .3 or .4 and using the Font Bold feature.
 - 3) Attach the label using an under and over-coat of undiluted Rhoplex B60-A. This is a low-viscosity, water-based acrylic emulsion which offers excellent durability and flexibility as it ages. Do not let the under-coat dry before applying the paper label. A second layer of top-coat may be necessary. Using a fine artist's brush or tweezers carefully place the label on the adhesive while the adhesive is still tacky. Allow label to dry completely.
 - 4) The use of a rapidograph-like pen may be used in placed of a computer generated paper label as long as you place it on the Rhoplex B60-A undercoat layer (a thin layer of Paraloid B-72 is also acceptable as an alternative). Please write legibly, unobtrusively, and as small as possible.
 - 5) NEVER write directly on the artifact with indelible ink. The ink will bleed into any porous material and is permanent.
 - 6) NEVER use nail polish or typewriter white-out to label object.
- c. Removal:
 - 1) All layers can be carefully removed with acetone applied with a cotton swab if a mistake is made or change is needed after a number has been applied.
 - 2) It is important to keep the solvent clean. Never re-dip a dirty swab into your supply of solvent. Use solvents sparingly. They should not come in contact with an object's surface any more than is necessary. Do not pour solvents into the sink.

d. Indirect Labeling:

- 1) Archival quality, acid-free card-stock tag may be tied to an unstable object in order to label it. Label with pencil, waterproof black India ink or computer generated laser printed label.
- 2) The material used to attach labels or tags should not cut into the artifact. The most common preferred material is un-dyed 100% cotton string; however, do not use it on rubber or plastic artifacts. Do not use colored or treated string or thread. DO NOT use metal rim tags, coated metal twist-ties or flagging tape.

4. Reconstruction

- a. One should first ask if it is really necessary to reassemble the artifacts. Partially reconstructed vessels take up more room and are more difficult to stabilize. The method used needs to be reversible and the treatment used should be described on a condition report which is placed with the reconstructed artifact. A standard condition report form is available from Fort Bliss Curatorial Facility.
- b. Broken artifacts that are going to be reassembled should be thoroughly cleaned and dried prior to any reconstruction.
- c. Chose an adhesive that is fully reversible. For glue use about 45-50% solution of Acryloid B72 crystals dissolved in Acetone. Prepare all sherds with a thin layer of Acyloid B72 (10% solution) before applying the glue. This treatment will prevent the adhesive from seeping into the temper and ensure a strong bond between sherds and establish a clear fracture line if the adhesive fails. NEVER USE white glues such as Elmer's Glue, rubber cement, and epoxies.

5. Cataloging

Fort Bliss Curatorial Facility recognizes that there are a variety of ways to catalog a collection and therefore allows flexibility as long as any previous tracking or control system used in the field or analysis is cross-referenced to the accession artifact file. This would include Project Numbers, Temporary Field Site Numbers, Bag Numbers, Field Lot, Provenience Number (PNUM), Provenience Designator (PD) or specimen numbers.

6. Accessioning

- a. Only artifacts that are collected on Fort Bliss boundaries are accessioned by project. Contact Fort Bliss Curatorial Facility for an accession prefix number. Artifacts are entered into the Fort Bliss collections through the use of three-part numbers separated by periods that reflect

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- the accession year, the accession number, and the sequential catalog number, as shown in the following example: (2004.7.1, 2004.7.2, 2004.7.3 etc...).
- b. On occasion it may be necessary to add an extension (a, b, c...) to separate a bag further. For example, Wire Nail (2004.7.1a) and Roofing Nail (2004.7.1b).

7. Artifact Bagging

- a. Artifacts must be bagged in 4 mil polyethylene (zip-lock) bags. Standard bag size is 3"x 5" for most artifacts. Choose a bag size that fits the artifact. Artifacts should not be swimming in the bag nor bulging at the seam. The items should be completely dry before being placed in the bags. Use a thicker ply bag for heavier objects or items that need more cushioning.
- b. A 4 mil polyethylene (zip-lock) bag, size 2 ½" x 3" or clear polypropylene vials may be used as a secondary container for small items. Write accession number on vial with archival pen (e.g., Kaiser-like). DO NOT USE film canisters, prescription pill bottles, PVC (polyvinyl) containers or glass vials to contain artifacts. Place item within larger primary bag.
- c. For perishables contact the Fort Bliss Curatorial Facility for further instructions.
- d. Bags should NOT be marked with felt tip marker (e.g., Sharpie-like).
- e. An outer archival foil back tag (3"x 2") should be affixed to the polyethylene zip lock bag. Affix label > than ¼" below top closure seam. Placing the label too close to the rim of the bag results on wear and tear to the label every time it is opened.
- f. Minimal information for outer label will include:
 - (1) Accession number
 - (2) Name and number of artifacts
 - (3) Fort Bliss project number
 - (4) Fort Bliss site number (FB ##) and state site number (LA ## for New Mexico; 41EP## for Texas)
 - (5) Intrasite Provenience (UTM, unit, level, feature, etc.). This information must correlate with the field notes and report.
 - (6) Date collected

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Example of Outer Foil-back Artifact Tag:

Accession Number: 2004.10.149
1 Light Fraction
FB Proj: 04-10
FB#: 13273 State#: 41EP5375
NAD 27: E378172, N3529737, Unit 15, Lv.
3, Fea. 16, Lot 210
Date: 8/12/06

8. Tags

- a. All bags must have an acid-free interior tag with appropriate provenience information.
- b. Field tags should minimally contain the following data:
 - (1) Site number / State number
 - (2) Project number/ Project name
 - (3) Intrasite Provenience (unit, level, UTM, etc.)
 - (4) Date
 - (5) Lot, provenience number (PNUM), field specimen (FS) or catalog number
 - (6) Count
 - (7) Artifact name
 - (8) Accession number

Example of Inner Artifact Tags

Site # 41EP5375	FB13273
Project 04-10	GMI # 10051.00.09
"Mitigation 8 sites in MA 2B"	
Lot# 210	Feat. # 16
Unit: 15	Level: 3
NAD 27: E378172	N3529737

Depth (cm) 1276.55 to 1276.45

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Contents: 1 Light Fraction
Comments: Sent out for analysis
Date: 5/12/06 Initials: ME
Accession: 2004.10.149

- c. Inner tags should be printed on laser printers or handwritten onto 65 lb. weight acid-free cardstock. Pencil or archival ink (e.g., pigma pen) must be used on labels if the tags are handwritten. Tags with ink or ball point pen will not be accepted.
- d. Inner tags should be placed facing towards the back, so that all information is readable without having to remove the tag.
- e. When possible, we encourage retaining the original acid-free field tag and placing it inside the bag along with the computer generated inner tag. DO NOT submit brown paper bag cutouts.
- f. Edits to the inner tag, database, collection lists, and report should match. This means that a change in any of the mediums will affect information listed elsewhere. It is not the responsibility of the Fort Bliss Curatorial Facility to track or update any changes that were made during analysis or report write-up.
- g. Edits to tags should be made with lead pencil, color pencil, or archival color fine line pencil (e.g., pigma micron) or a new tag maybe be printed out. DO NOT USE PEN or sticky post-it notes.

9. Culled Objects, Soil and Bulk Samples

- a. Archaeological soil samples vary in size (volume) and are collected for a variety of reasons (e.g., flotation, soil characteristics, OCR dating, pollen and phytolith for environmental reconstruction, and soil profile). Of these, only a selected amount is actually subject to further processing.
- b. The “Department of Defense Guidelines for the Curation of Archaeological Soil Samples” (2000) states that while it is appropriate to store and conserve small or modest amounts of soil from archaeological research projects, samples retained for long-term curation should be carefully selected and individually justified. Samples that are appropriate for retention may include ones from unusual, unique, or especially important strata or cultural features. The mere idea that new techniques of analysis may be discovered in the future should not be used as a blanket justification for retaining large numbers of samples or large quantities of unremarkable soils (www.denix.osd.mil/denix/Public/Library/NCR/curation.html).
- c. The bottom line is “be selective in retaining soil samples for further analysis.”

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- d. Double bag organic material, soil samples and any other bulk item. Place the inner tag between the bags to keep them clean. Make sure sample is dry to prevent mold growth.
- e. The sampling or culling redundant collections, whether in the field, during analysis, or during curatorial preparation prior to submission is encouraged to reduce the size of large volumes of bulk materials (e.g., non-artifacts, building material, brick, glass, fire cracked rock, and soil samples). Army Regulation (200-1, 6-4 e(5) dated 2007, encourages culling of artifacts by "minimizing the amount of archaeological material remains permanently curated by reserving such treatment for diagnostic artifacts and other significant and environmentally sensitive material that will add important information to site interpretation" (www.apd.army.mil/pdffiles/r200_1.pdf).
- f. Archaeologists should fully document sampling or culling decisions and all pertinent count/weight and descriptive information for any materials discarded. This record shall be made part of the associated records. This requirement may be fulfilled in part by describing in detail the culling process in the accompanying final report or publication, as well as listing culled objects with the detailed descriptive and provenience information with catalog records, but marked as "discarded."
- g. Although we discourage the submission of large amounts of fire-cracked rock and bulky ground stone, it does not imply that we will not accept representative samples.
- h. Once the materials are accepted by the Fort Bliss Curatorial Facility, the only legal means of disposing archaeological material is through consumptive analysis or repatriation of items (Griset and Kodack 1999, 36).
- i. Please contact the Fort Bliss Curatorial Facility for further guidance regarding the selective discard of material remains.

10. Collections Released for Analysis

- a. Material released for any reason to another laboratory or individual analyst shall be documented on a Material Release Form available from the Fort Bliss Curatorial Facility. The form and any letters prepared for submission shall be duplicated, with one copy accompanying the material, and the other copy being retained by the contractor for inclusion in the final deliverables.
- b. The contractor should note on the form whether or not the material will be returned or retained or completely consumed during analysis (e.g. C-14).
- c. Relative data and reports generated from the analysis should be included in the final deliverable, even if it appears as an appendix in the report (e.g. original BETA sheets).
- d. If the analysis is completed, and the material is returned to the contractor before the project is complete, the material can be submitted with the final deliverables as a group and the box clearly marked to differentiate it from the rest of the collection.

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- e. If the material has not been returned in time for submission with the final deliverables, the contractor must notify the COR and must forward the material to the Fort Bliss Curatorial Facility as soon as it is received.

11. Photographs

- a. Color or Black-and-white (B/W) negatives and prints are OPTIONAL.
- b. Choosing the proper film type is critical. B/W photographic images are considered archivally stable over time because of their metallic silver grains. We do not accept B/W photographs processed with chromogenic procession (C-41) because of the long-term instability of dyes. BEWARE: Kodak is manufacturing a C-41 black-and-white film called BW400CN or BW400-2, Ilford produces XP2 Super and Fuji produces Neopan 400CN. These films work like any other C-41 film; the development causes dyes to form in the emulsion and are subject to fading over time.
- c. Never combine more than one project on a roll of film.
- d. After processing, it is recommended that cataloging and handling the materials be done in a separate room away from the artifact lab to keep them as clean as possible. Negatives should be handled with clean 100% cotton gloves to avoid transferring oils and salt from the hands to the materials. Place negatives in polyethylene sleeves that hold 7 strips of 5 frames. Negative strips should minimally be reconciled with the photographic log (roll and shot number). Please add an additional category of frame number. For example, Roll BW-01, Shot# 01, Frame# 03, if you have shot 1 but it appears as frame 3 on the negatives.
- e. Prints are also placed in polyethylene sleeves, usually size 3 ½" x 5" or 4" x 6". Use only film marking pens or pencil for handwritten information. Foil-backed adhesive labels printed by laser printer are preferred for any computer-generated labels. Photographic media should be stored in a clean, cool environment until submitted to the repository.
- f. Roll numbers can be assigned by media type (e.g. BW-01 or Color-01). Photo Logs should include: Fort Bliss project number; Fort Bliss (FB) site number; Roll #; Shot; Frame; Provenience; Date taken; Name or description of picture, including direction.

12. Digital Photographic Files

- a. Prior to June 2010, digital images were used only as a supplement and were treated as part of the project files. Fort Bliss Curatorial Facility will now accept master image files of digital photography following the provisions stated below.
- b. At a minimum one should be taking images of site overview, all features, artifact density, plan view of excavation unit before excavation and post excavation levels, geomorphological strata, trenches, profiles, and pictures of artifacts included in the report.
- c. Digital photographic files must be submitted on a CD-R (write-only) disks of high quality or DVD. Only Tagged Image File Format - TIFF (.tiff) format files will be accepted as the master image file as the primary digital archive which will be stored on a designated main server at Fort Bliss. Tiff version 6.0 is recommended and preferred over JPEG even though the file size is larger. The JPEG format can compress image data, which results in smaller file sizes; however, the compression procedure is a lossy compression system, which means that image resolution is sacrificed during the process. Each time an image is opened, edited, and saved, a certain amount of resolution is lost.
- d. The “Image Identifying Number” must follow a four-part format of FB project-site-date taken-image number# (e.g. 10-30_FB1252_5-23-11_IMG_001). Use FB0 for non-site or isolated finds.
- e. Digital camera files must be captured as 6 megapixel files or greater, with a minimal resolution standard of 24-bit and approximate pixel array (i.e., height and width of an image in pixel) of 3,000 pixels by 2,000 pixels. Records produced at this resolution and size are comparable in quality to 35-mm film photography (NARA).
- f. Hard Copies of Images and Documentation
 - 1) Print copies of all digital images on acid-free paper by laser printer as B/W print. You may print up to four 3”x 4” prints on a page at a minimal resolution of 600 ppi (pixel per inch) or 300 ppi for 5”x 7” prints.
 - 2) The image file must have an image file name listed next to or below the image. The image ID must reflect the FB project-site-image number# (e.g. 10-30_FB1252_5-23-11_IMG_001)
 - 3) A digital image photo log (MS EXCEL) must accompany all digital photo disks with the minimal information listed below. Please avoid using special characters such as @, %, &, or *.

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Required Data Field for Photographic Log

1. **Fort Bliss Project** (e.g. 10-30)
2. **FB Site#** (FB1252)
3. **Image Source.** Identify the original medium used to capture the image (e.g., the make and model of digital camera)
4. **Image Identifying Number** (FB project-site-date-image#) such as “10-30_FB1252_5-23-11_IMG_001.” Use FB0 for non-site or isolated finds.
5. **Description** (i.e. who, what, where, why). DO NOT LEAVE BLANK. Include any identifying field numbers, accession# or provenience (e.g., Unit 1, Feat. 10, Surface).
6. **Direction** (direction of shot)
7. **Date** (Date photograph taken, format 06/01/2010)
8. **Photographer** (person taking photograph)
9. **File Format** (e.g. TIFF)
10. **File Size** (e.g. 108KB)
11. **Resolution** (Pixel x Pixel)/Image Size. Specify the image height and width of each image.
12. **Comment**

- g. A DUPLICATE second set of the images in high quality JPEG are required for our project files and should be copied on a separate disk and photo log. It is recommended that the TIFF archival set be organized first. The second JPEG set can be created from the master archive prior to any modifications (i.e., cropping, color adjustments, etc.). Manipulation of the image degrades resolution.
- h. To produce a good quality image the camera sensor type should be 2/3” or 1” or greater. Images taken with phone cameras, iPads, or cheap point-and-shoot cameras will not be accepted. For additional information see the attached technical guidelines (4/19/2016).

13. Documents

- a. Documents should be submitted in acid-free folders. Label with 4HH pencil or computer generated foil-back 2 ½"x ¾" label. Label should include: FB Project number, Site Number, contents description.
- b. Organize records into general project and site specific categories. For larger projects group into categories such as level form, feature, geomorphic, photographic log, and collection list.
- c. Identify all forms with a project number and associated site number. DO NOT USE PEN.
- d. Dirty or torn paper should be placed in archival page protectors.
- e. Do not use legal yellow pad, spiral notebooks, post-it notes, paper towel, newspaper, staples, paper clips, rubber bands, or pressure sensitive tape. The use of spiral and metal bound field notebooks is therefore discouraged.
- f. Do not staple pages together. If you need to maintain grouping within broader category, you may use paper file folder inserts that is sized to fit inside standard file folders or by inserting a blank acid-free color paper as page dividers.
- g. Do not use pen. If pen markings are found, then place document in archival page protector sleeve.
- h. Edits to original documents should be made with lead pencil, color pencil, or archival color fine line pencil (e.g., pigma micron-like). DO NOT USE PEN OR STICKY TABS.
- i. Field journals should never be used for multiple projects.
- j. Analytical group designation on the inventories must correspond to those used in the final report.

14. Electronic Inventory

- a. All electronic files should begin with the FB project number and be descriptive enough to tell what the file contains (03-04 Artifact Database)
- b. Collected material must be submitted in a standard electronic format, MS ACCESS. We require that all inventories include the fields summarized below. FORMAT MUST MATCH. DO NOT CHANGE name, format or text length.
- c. A printed collection list must accompany any collections submitted for curation. Include Project Number, Accession, FB site, State #, Provenience (combined provenience information), Qty, Artifact Class, and Artifact Name.

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Required Data Fields with Recommended Specifications for Artifact File

Field	Format	Length	Definition	Examples
Special_coll	Yes/No	n/a	Special collection : Artifacts pulled and placed in special collections cabinet	(DO NOT USE - WILL BE PROCESSED AT FORT BLISS)
Present	Yes/No	n/a	Present or Absence used to QC inventory	Yes = present; No=not present; (DO NOT USE - WILL BE PROCESSED AT FORT BLISS)
Access#	Text	15	Three part unique accession number. First two parts assigned by Fort Bliss at beginning of project. Third part assigned by contractor beginning with 1 through N. Do Not used leading 0's	2001.5.1 or 2001.5.1a
Acc_yr	Number	Long Integer, Auto	Used for sorting records. First part of three part unique number	2001
Acc_seq	Number	Long Integer, Auto	Used for sorting records. Second part of three part unique number	5
Acc_cat	Number	Long Integer, Auto	Used for sorting records. Third part of three part unique number	1
Acc_ext	Text	25	Extension number. Use when unique accession number needs to be split into two or more bags.	a,b,c,d,e....
FB_proj	Text	25	Two-part Fort Bliss project number. First part is two digit year and second is number of project for that year. Do not confuse this with the Accession number.	02-06
Other_proj	Text	25	Contractors project number or Delivery order number	TRC 7801, GMI66EP, Lone Mt. 502, SRI 07-49, D.O. 12
Proj_title	Text	100	Short Project Number	"5 Site Mitigation in TA29"
FB_num	Number	Long Integer, Auto	Fort Bliss Site Number	7055
FB_txt	Text	10	Fort Bliss historic site number	FB 12568, FBH-251
State_num	Text	10	Site number assigned by Laboratory of Anthropology or TARL	41EP279, LA12595
Cat_num	Text	25	Provenience number, Field Specimen or Catalog Number	PNUM 25, FS 79, Cat 11-2, PD 150
Projection	Text	25	UTM projection	NAD 27, NAD83, WGS84
UTM_E	Number	Double, 2	UTM Easting Coordinates	302195
UTM_N	Number	Double, 2	UTM Northing Coordinates	3514275
Other Provenience	Text	255	Identification of quad ID, Block#, Unit#, Trench#, Shovel Test Pit#, Auger#, Point Provenience, GRID	BK 4, TP 5, BHT 3, STP 9, AU 8, PROV-1313
Fea	Text	50	The identifying number for the cultural feature from which the bag was recovered.	45

Lv	Text	25	Level Number or other number designating vertical provenience	LV 1, Strat A, scrape, surface, wall
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Top	Text	25	Measured depth to top of unit w/ unit of measure specified	0.28 mbd , 28 cmbs
Bot	Text	25	Measured depth to bottom of unit w/ unit of measure specified	0.38 mbd , 38 cmbs
Date	Text	50	Collection Date	05/02/06, n.d.
Initials	Text	50	Initials of collector or excavator	MY
Qty	Number	Double, Auto	Number of artifacts in bag. When accurate count is not feasible, enter 1 and add weight to artifact description.	119
Art_class	Text	50	Basic artifact class	See Table: <i>Artifact Class and Artifact Name Format</i>
Art_name	Text	50	Kind of artifact	See Table: <i>Artifact Class and Artifact Name Format</i>
Art_description	Text	255	Detail artifact description	*SEE 14d for details
Wt_gms	Number	Double, 2	Weight (grams); use for bulk items or whenever it is not feasible to get an accurate count	1.5 gms.
Lab_ID	Text	50	Laboratory Sample ID	BETA 152000
Provenience	Text	255	Combined provenience information	E383603; N3551714; Fea. 0; Lv. 0
Comment	Text	255	Additional Comments	Any additional comments or problems
Edit_comment	Text	255	Edit comments related to changes made to original dataset	(DO NOT USE-WILL BE PROCESSED AT FORT BLISS

- d. Artifact Description should include a detail description of the artifact. Please begin with repeating the Artifact name, followed by the detail description, such as projectile point type, material, portion, other use. See examples below:

Example 1: Projectile Point, San Pedro, obsidian, midsection

Example 2: Unimarginal Retouched, quartzite, whole

Example 2: El Paso brownware, bodysherd, (5 pcs. conjoins)

Example 3: Flake, (1 rhyolite, 2 chert, 4 quartzite)

Example 4: Bone, burnt, 25.15 gms.

Example 5: Work Ceramic, El Paso Polychrome, Rim, repair hole

Example 56: Charcoal, 10.2 gms, BETA-25415, sample used-up

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Artifact Class and Artifact Name Format

CLASS	ARTIFACT NAME
Ceramic	El Paso Brown, El Paso brownware, El Paso Decorated, El Paso Polychrome, Mimbres B/W, Chupadero B/W, Three Rivers Red/Terracotta, Playas Red, Gila Polychrome, St. Johns Polychrome, Ramos Polychrome, etc...
Ceramic, Rim	El Paso Brown, Rim
Ceramic, Modified	El Paso Brown, (Spindle Whorl, Disk, Shaped Edge, Repair Hole, Figurine, Effigy, Pipe, Scoop, Handle)
Ceramic, Artifact	El Paso Brown, (Ladle, Handle, Figurine, Effigy Pipe, Scoops)
Lithic	Angular Debris, Flake, Utilized Debitage, Utilized Flake, Tested Cobble, Bipolar Tested
Lithic Tool	Projectile Point, Unimarginal Retouched, Bimarginal Retouched, Uniface, Biface, Core, Hammerstone, Drill
Ground stone	Mano, Metate, Mano/Metate, Anvil, Pestle, Shaft Straightener, Metate/FCR
Other Artifact	Cruciform, Manuport, Polished Stone, (Please use sparingly)
Fauna	Animal Bone, Antler
Bone Artifact	Awl
Historic, Ceramic	Earthenware, Stoneware, Porcelain, Refined Whiteware
Historic, Glass	Bottle, Window, Lantern
Historic, Metal	Nail, Screw, Washer, Can, Cartridge, Coin, Wire, Horseshoe, Hook, Rivet, Indeterminate (ferrous metal)
Historic, Paper	Newspaper
Historic, Building Material	Shingle, Tile, Brick, Adobe, Mulled Lumber, Cement
Historic, Other	Rubber, Leather, Plastic
Rock Specimen	Chert (i.e., geological sample)
Mineral Sample	Ochre, Turquoise, Hematite, Limonite
Sample	C-14, Flotation, Pollen, Phytolith, Light Fraction, Heavy Fraction, Obsidian for Sourcing, Adobe, Clay, Soil, XRF, INAA, Dendro, Thermoluminescence, Fossil, etc...
Botanical	Seed, Wood, Nuts, and Plant Parts
Perishable	Yucca Fiber, Textile, Sandals, Cordage, Basketry
Ornamental	Bead, Pendant, Bracelet, (any material)
Burnt Rock	Fire-cracked rock, Burnt Caliche

Shell	Unworked Shell
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15. Packaging

- a. Use archival material only (see table below).
- b. For smaller collections organize by accession number.
- c. Larger collections should be ordered by provenience unit (site) within each analytical group, such as ceramics.
- d. DO NOT mix heavy/bulk items with lighter, more fragile items unless those items have been protected by special packaging.
- e. Below is a table of material that should and should not be used for packing and storing material remains.

Recommended Packing Materials for Objects Packing

Acid-free boxes* (Fort Bliss will repackage collection using standard archival box)
Acid-free paper
Acid-free poster board
Acid-free tissue paper
Polypropylene containers
Polyethylene foam
Polyethylene bags with zip closure (4mm thickness)
Polyethylene sheeting and chips
Polyester batting
Tyvek® for labels
Aluminum foil (C14 samples only)
Metal containers (limited uses)
Glass containers (limited uses & insulated against breakage)
Cotton or muslin fabric
Melinex®
Ethafoam®

Materials Not Recommended for Objects Packaging

Cigar boxes or regular cardboard boxes
PVC or unidentified plastic containers
Styrofoam
Sandwich baggies
Unidentified plastic wrap
Polyurethane chips
Toilet paper, facial tissue, or newspaper
Acidic paper
Brown paper bags
Cellophane tape
Foam rubber, urethane foam
Masking tape
Rubber bands, twist ties, tape, string, metal staples or paper clips, post-it notes

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16.Shipping

All items should be hand delivered when possible. Please notify the Fort Bliss Curatorial Facility in advance of any shipment. For Fort Bliss generated projects, delivery should be coordinated with the project COR. Repository staff will not accept delivery of a collection without a report unless this has been authorized by the COR.

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Check List of Deliverables

- o Transmittal Letter
 - (e.g., Date, Organization, Project Number, Report Title, List of items being delivered, signature lines)
- o Final Report
 - Perfect Bound Report (SOP should specify how many).
 - Electronic Version of Report (must include cover page and document page) in MS Word and Adobe Acrobat pdf.
- o Camera Ready
 - 2- unbound, first generation originals on 25 percent cotton rag bond paper or other suitable archival paper, plus document and cover page.
- o Fanfold Brochures
 - Fanfold Brochures (SOP should specify how many fanfold brochures)
 - Electronic Version in Adobe, pdf. format.
- o Site Forms (don't need to be in individual folders. Place temporary paper clip)
 - 2- Copies New Mexico Laboratory of Anthropology (LA) site forms with maps, and two completed NIAF forms, on acid-free paper. Two copies of 1:24k location maps and site plan maps.
 - Plus electronic site form files (word or pdf.)
 - 2-Copies Texas Abstract form.
 - 1-copy of TARL forms on acid-free paper, plan and location map, and pictures of collected artifacts that were in the report. Plus electronic dbf and pdf. format.
 - One EXCEL file that lists FB site number, state number, NAD 27 and WGS-84 UTM's for the site center, and the eligibility recommendation.
- o Artifacts
 - Accessioned artifacts in 4 mil poly-bags with inner artifact tag and outer foil back label.
 - MS ACCESS artifact database
 - Collection printouts
 - Artifact Analysis printouts, plus codes and associated values (e.g., 1=sherd, 2=flakes, etc.).
 - Analysis electronic files
 - For larger projects artifacts should be boxed by site and analytical groups (e.g. ceramic and lithics).
 - List of culled artifacts
 - List of samples used-up during analysis.
- o Photographs
 - B/W negatives, B/W prints, and log. Affix foil back labels and place in sleeves.
 - Color negative, Color prints, and log.
 - Digital images printed on acid-free paper as B/W image with ID number
 - Printed and electronic photo logs (EXCEL).

- o Project files (acid-free folders)

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- Archival Background search (Historic projects)
- NIAF Form (New Mexico)
- Texas Abstract Form (Texas)
- Field forms (e.g., level, feature, trench, geomorphology)
- Field journals
- Original BETA forms or other samples forms
- Artifact illustrations
- Artifact printouts
- Analysis forms printouts
- Special analysis submission form or letter
- Analysis results (e.g., original BETA ~~forms~~forms)
- Site or feature plan views
- Aerial maps
- Topographic maps
- Other (misc.)

REFERENCE

Griset, Suzanne and Marc Kodack

- 1999 Guidelines for the Field Collection of Archaeological Materials and Standard Operating Procedures for Curation Department of Defense Archaeological Collections, Legacy Project No. 98-1714.

Griset, Suzanne, Arthur Vokes, and Catherine Sarther

- 2004 Requirements for the Preparation of Archaeological Project Collections for Submission to the Arizona State Museum. Arizona State Museum, University of Arizona, Tucson, Arizona.

Technical Guidelines for digital images (4/19/2016)

1) Megapixel:

a) Size

- **BEST:** 8 megapixel minimal for large prints
- **Good:** six megapixel or greater
- **AVERAGE:** two-five megapixel
- **POOR:** Camera phones and digital cameras with less than two megapixel

b) Myth: The more megapixel a camera has the better the pictures is a myth. It seems logical that more megapixels would mean a sharper photo but other important facts come into play such as a camera's lens, circuitry and sensor. The number of megapixel means nothing if the manufacturer has achieved it by cramming them onto a small sensor, as is the case with many modern phones. A good camera will have the right amount of pixels for the size of the sensor.

c) Print Size based on megapixel. As you increase the size of a print above the acceptable print size, the image quality will show a considerable loss of image quality. For instance, a 2.0 megapixel (1740 x 1160) image will begin to deteriorate if you try to print it above a 4x6.

Table 1: Print Size based on megapixel

Number of Megapixel	Image Dimension s	Acceptable Print Size (inches)
2.0	1740 x 1160	4 x 6
3.0	2160 x 1440	5 x 7
4.0	2450 x 1633	8 x 10
6.0	3000 x 2000	9 x 12
8.0	3504 x 2336	9 x 12
10.0	3872 x 2592	10 x 15
12.0	4256 x 2832	11 x 17
14.0	4608 x 3072	12 x 18
16.0	4928 x	16 x 20

	3264	
18.0	5184 x 3456	16 x 20
24.0	6016 x 4000	20 x 24
http://www.digital-slr-guide.com/define-megapixels.html		

2) Image format

- **BEST:** Tag Image Format (TIFF)
- **AVERAGE:** JPEGs converted to TIFFs, by computer conversion process
- **POOR:** Do not use JPEG setting on camera if a higher quality is available

3) Resolution: The amount of detail that the camera can capture and is measured in pixels. Higher resolution means more image detail.

- **BEST:** 4256x2832 and above (high-end consumer cameras)
- **GOOD:** 4064x2704 (Found in top-of-the line digital cameras with 11.1 megapixels)
- **AVERAGE:** 3000x2000 (Found in 6 megapixel cameras)
- **455POOR:** 640 x 480 (Low end on “real cameras” ideal for e-mailing)
- **VERY POOR:** 256 x 256 (Found in very cheap cameras, resolution is so low that the picture quality is always unacceptable)

4) Camera Sensors

- **BEST:** Full Frame, APS-H (Professional)
- **GREAT:** APS-C, Four Thirds (Ultra High-End Compacts, Semi-Professional DSLRs)
- **GOOD:** 2/3” and 1”⁺ (High-end compact cameras)
- **AVERAGE:** 1/1.7”mm (Mid-range compacts)
- **POOR:** 1/2.3”mm (Low-mid Compact, Point-and-Shoot cameras)
- **VERY POOR:** 1/3” (Most camera phones and among the smaller sensor budget compact cameras)

Table 2. Image Sensor Comparison

Type	Sensor Diagonal	Size (w x h mm)	Camera Types
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Large Format	150	121x97	
Medium Format	70	56x42	
35mm Full Frame	43.3mm	36x24	High End DSLRs
APS-H	34.51mm	30.2x16.7	
35mm Half Frame	33.7mm	28.1x18.7	
APS-C	30.15mm	25.10x16.7	Entry level DSLRs - Midrange DSLRS
Four Thirds	22.5mm	18x13.5	DSLRs - Large Compacts
1"	16mm	12.8x9.6	High End Compacts
2/3"	11mm	8.8 x 6.6	High End Compacts
1/1.7"	9.50mm	7.6x5.7	Mid-Range Compacts
1/1.8"	8.94mm	7.2x8.94	
1/2.3"	7.72mm	6.2x4.6	Low-mid Compacts (Point-and-shoot Cameras)
1/2.7"	6.64mm	5.3x4.0	
1/3"	6mm	4.8x3.6	Most camera phones

5) Optical vs. Digital Zoom

- **BEST:** Optical (Does not alter image quality)
- **AVERAGE:** Combination of Digital and Optical Zoom (Best to disable digital zoom)
- **POOR:** Digital Zoom (With digital zoom/enlargement, the megapixel resolution decreases as you "zoom" in digitally)

6) Labeling CD's

- **BEST:** An ink-printed paper label may be fitted under a jewel case cover. Another method is Screen/Thermal printed disk for massed produced disks.
- **AVERAGE:** non-solvent based felt-tip permanent marker.
- **POOR:** Avoid using sticky label or full-faced CD labels as it tends to throw off the balance of the disc and the sticky label glues may in time eat at the lacquer layer.

